

ABSTRACT OF THE DISCLOSURE

An electrode and/or wiring having a polycide structure is formed with voids V therein at the preparing stage as shown in FIG. 3. If the scale down and lowering of resistance of the electrode and/or wiring further proceed in future, the influence of the voids becomes obvious to lower yields.

According to the present invention, a method for depositing a tungsten silicide film is characterized in that when a tungsten silicide layer is formed on a polysilicon layer, a phosphorus atom containing gas is added to a reactive gas at least in the initial stage that the tungsten silicide layer is formed, and the amount of the added phosphorus atom containing gas is set to be in the range of from 0.2 vol.% to 0.45 vol.%.